



JC04 Rec'd OCT/PTO 05 OCT 2005

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re U.S. Patent Application of**

**SUGAHARA et al.**

**Application Number: 10/522,241**

**Filed: January 25, 2005**

**For: A SPIN TRANSISTOR BASED ON THE SPIN-  
FILTER EFFECT AND A NONVOLATILE MEMORY  
USING SPIN TRANSISTORS**

**ATTORNEY DOCKET NO. HIRA.0178**

**Honorable Assistant Commissioner  
for Patents  
Washington, D.C. 20231**

**LETTER**

Sir:

The below-identified communications are submitted in the above-captioned application or proceeding:

- |   |   |
|---|---|
| <input type="checkbox"/> Priority Documents                               | <input checked="" type="checkbox"/> Information Disclosure Statement w/1449 |
| <input type="checkbox"/> Request for Priority                             | <input type="checkbox"/> Petition under 37 C.F.R. 1.47(a)                   |
| <input type="checkbox"/> Response to Notice of<br>Non-Compliant Amendment | <input type="checkbox"/> Check for \$ 0.00                                  |

- ☒ The Commissioner is hereby authorized to charge payment of any fees associated with this communication, including fees under 37 C.F.R. § 1.16 and 1.17 or credit any overpayment to **Deposit Account Number 08-1480**. A duplicate copy of this sheet is attached.

Respectfully submitted,

Stanley P. Fisher  
Registration Number 24,344

Juan Carlos A. Marquez  
Registration Number 34,072

**REED SMITH LLP**  
3110 Fairview Park Dr., Suite 1400  
Falls Church, Virginia 22042  
(703) 641-4200  
**October 5, 2005**



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**INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97, this Information Disclosure Statement is submitted in the above-identified patent application. A listing of documents to be published on the face of any patent granted from this application is submitted herewith on Form PTO-1449. Any other documents or information submitted for consideration by the Examiner are listed in this paper. A copy of each foreign patent, or each publication or portion thereof listed or herein identified, is submitted herewith.

**CERTIFICATION**

This Information Disclosure Statement is submitted after three months of the filing date but prior to the mailing date of the first Office Action of the above-captioned U.S. patent application.

The Examiner is requested to acknowledge consideration of the information provided in this paper in accordance with prescribed procedures.

Please charge any additional fees or credit any overpayments in connection with this paper to Deposit Account No. 08-1480.

Respectfully submitted,

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Registration Number 24,344



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Falls Church, Virginia 22042  
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Form PTO 1449  U.S. Department of Commerce Patent and Trademark Office  Information Disclosure Statement by Applicant	ATTY. DOCKET NUMBER HIRA.0178	SERIAL NUMBER 10/522,241
	APPLICANT SUGAHARA et al	
	FILING DATE January 25, 2005	GROUP

## U.S. Patent Documents

Examiner Initial		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE

## Foreign Patent Documents

Examiner Initial		DOCUMENT NUMBER	FILING DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
							YES	NO

## Other Documents (Including Author, Title, Date Pertinent Pages, Etc.)

		Supriyo Datta et al., "Electric Analog of the Electro-Optic Modulator", Appl. Phys. Lett, Vol. 56, No. 7, February 12, 1990, pp. 665-667
		D. J. Monsma et al., "Perpendicular Hot Electron Spin-Valve Effect in a New Magnetic Field Sensor: The Spin-Valve Transistor", Physical Review Letters, Vol. 74, No. 26, June 26, 1995, pp. 5260-5263
		K. Mizushima et al., "Energy-Dependent Hot Electron Transport Across a Spin-Valve", IEEE Transactions on Magnetics, Vol. 33, No. 5, September 1997, pp. 3500-3504
		Sebastia van Dijken et al., "Room Temperature Operation of a High Output Current Magnetic Tunnel Transistor", Applied Physics Letters, Vol. 80, No. 18, May 6, 2002, pp. 3364-3366
EXAMINER		DATE CONSIDERED
<i>EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP 609; draw a line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant</i>		

PTO1449